

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (currently amended): An image processing method comprising ~~the steps of:~~

(a) carrying out, in parallel, ~~process of two or more functions~~ a process of one of an image reading function, an image recording function, an image copying function and an image communicating function, in response to a command that is accepted while carrying out a process of another of the image reading function, the image recording function, the image copying function and the image communicating function; and

(b) automatically storing a file of the image data processed by said [[step]] carrying out (a) independently of [[the]] processes of the image reading function, the image recording function, the image copying function and the image communicating function.

Claim 2 (currently amended): The image processing method as claimed in claim 1, wherein said [[step]] carrying out (a) stores the file of the image data in ~~storing means a~~ storage unit which is provided internally or externally to [[one]] an image processing apparatus which has each of the functions.

Claim 3 (currently amended): The image processing method as claimed in claim 2, wherein said [[step]] carrying out (a) transfers the image data processed by each of the functions on one or a plurality of buses within the image processing apparatus.

Claim 4 (currently amended): The image processing method as claimed in claim 2, wherein said [[step]] carrying out (a) carries out the processes of the two or more functions in

response to an internal command and/or an external command of the image processing apparatus.

Claim 5 (original): The image processing method as claimed in claim 4, wherein the external command is issued from one or a plurality of external apparatus coupled to the image processing apparatus via a network.

Claim 6 (currently amended): The image processing method as claimed in claim 1, wherein said ~~[[step]]~~ automatically storing (b) stores the file of the image data by adding specific information which enables identification of the file.

Claim 7 (currently amended): An image processing apparatus comprising:
a scanner ~~which reads~~ configured to read a document and ~~outputs to output~~ image data;
a facsimile communication unit ~~which transmits and receives~~ configured to transmit and receive image data via a communication line;
a plotter ~~which records~~ configured to record an image on a recording medium based on image data; and
a control unit, ~~responsive to a command, controlling two or more~~ configured to control a process of one of said scanner, said facsimile communication unit and said plotter ~~to carry out processes~~ to process the image data in parallel in response to a command that is accepted while controlling a process of another of said scanner, said facsimile communication unit and said plotter,

said control unit automatically storing a file of the image data processed in parallel in a storage unit, independently of ~~[[the]]~~ processes of said scanner, said facsimile communication unit and said plotter.

Claim 8 (currently amended): An image processing apparatus comprising:

~~image-reading~~ means for reading a document and outputs image data;

~~image-communicating~~ means for communicating image data via a communication line;

~~image-recording~~ means for recording an image on a recording medium based on image data; and

~~control means, responsive to a command, for controlling two or more a process of one~~ of said ~~image-reading means for reading~~, said ~~image-communicating means for communicating~~ and said ~~image-recording means to carry out processes for recording~~ to process the image data in parallel in response to a command that is accepted while controlling a process of another of said means for reading, said means for communicating and said means for recording,

said ~~control~~ means for controlling automatically storing a file of the image data processed in parallel in ~~storing~~ means for storing, independently of ~~[[the]]~~ processes of said means for reading, said means for communicating and said means for recording.

Claim 9 (currently amended): The image processing apparatus as claimed in claim ~~[[8]]~~ 7, wherein said ~~storing means~~ storage unit is provided internally or externally to the image processing apparatus.

Claim 10 (currently amended): The image processing apparatus as claimed in claim 9, further comprising:

one or a plurality of buses transferring the image data processed by said ~~image reading means~~ scanner, said ~~image communicating means~~ facsimile communication unit and said ~~image recording means~~ plotter within the image processing apparatus.

Claim 11 (currently amended): The image processing apparatus as claimed in claim 9, wherein said control ~~[[means]]~~ unit controls two or more of said ~~image reading means~~ scanner, said ~~image communicating means~~ facsimile communication unit and said ~~image recording means~~ plotter to process the image data in parallel in response to an internal command and/or an external command to the image processing apparatus.

Claim 12 (original): The image processing apparatus as claimed in claim 11, wherein the external command is issued from one or a plurality of external terminals coupled to the image processing apparatus via a network.

Claim 13 (currently amended): The image processing apparatus as claimed in claim ~~[[8]]~~ 7, wherein said control ~~[[means]]~~ unit stores the file of the image data in the ~~storing means~~ storage unit by adding specific information which enables identification of the file.

Claim 14 (currently amended): An image processing apparatus comprising:
an image data bus line ~~transferring~~ configured to transfer image data ~~in real-time~~;
an image reading ~~means for reading~~ part configured to read a document image and ~~outputting to output~~ read image data to said image data bus line ~~in real-time~~;

an image communicating means for receiving part configured to receive image data from a communication line to output received image data to said image data bus line, and ~~for receiving to receive~~ transmitting image data from said image data bus line ~~in real-time~~ to transmit the transmitting image data to the communication line;

an image recording means for receiving part configured to receive recording image data from said image data bus line and ~~recording to record~~ an image on a recording medium based on the recording image data; and

a control means for controlling unit configured to control one of said image reading [[means]] part, said image communicating [[means]] part and said image recording [[means]] part which is unused for the processing of the image data to process the image data in parallel, in response to a command which is received during processing of the image data to carry out at least one of a reading operation by said image reading [[means]] part, a recording operation by said image recording [[means]] part, a transmitting operation by said image communicating [[means]] part and a receiving operation by said image ~~communication~~ means;

~~a buffer temporarily storing the read image data, the transmitting image data and the received image data on said image data bus line;~~

~~a DMA transfer bus line which is used to transfer the image data within said buffer by a DMA transfer;~~

~~image transfer means for transferring the image data within said buffer to said DMA transfer bus line based on a DMA transfer request which is received at a preset timing; and~~

~~image storing means for storing the image data on said DMA transfer bus line~~
communicating part.

Claims 15-21 (canceled)

Claim 22 (currently amended): An image processing system comprising:

an image processing apparatus including:

an image reading ~~means for reading~~ part configured to read a document and ~~outputs to output~~ image data;

an image communicating ~~means for communicating~~ part configured to communicate image data via a communication line;

an image recording ~~means for recording~~ part configured to record an image on a recording medium based on image data; and

a control ~~means, responsive to a command, controlling two or more~~ unit configured to control a process of one of said image reading ~~[[means]]~~ part, said image communicating ~~[[means]]~~ part and said image recording ~~[[means]]~~ part ~~to carry out processes to process the image data in parallel in response to a command that is accepted while controlling a process of another of said image reading part, said image communicating part and said image recording part;~~

an electronic filing apparatus coupled to said image processing apparatus; and

a storage unit coupled to said electronic filing apparatus,

said control ~~[[means]]~~ unit automatically storing a file of the image data processed in parallel in said storage unit, independently of ~~[[the]]~~ processes of said image reading part, said image communicating part and said image recording part.

Claim 23 (original): The image processing system as claimed in claim 22, wherein said image processing apparatus and said electronic filing apparatus are coupled via a network.

Claim 24 (currently amended): The image processing system as claimed in claim 23, wherein said image processing apparatus further includes a network connecting means for connecting part configured to connect said image processing apparatus to said network.

Claim 25 (currently amended): An image processing system comprising:

an image processing apparatus including:

an image data bus line ~~transferring~~ configured to transfer image data ~~in real-time~~;

an image reading means for reading part configured to read a document image and ~~outputting~~ to output read image data to said image data bus line ~~in real-time~~;

an image communicating means for receiving part configured to receive image data from a communication line to output received image data to said image data bus line, and ~~for receiving~~ to receive transmitting image data from said image data bus line ~~in real-time~~ to transmit the transmitting image data to the communication line;

an image recording means for receiving part configured to record recording image data from said image data bus line and ~~recording~~ to record an image on a recording medium based on the recording image data;

a control ~~means for controlling~~ unit configured to control one of said image reading ~~[[means]] part~~, said image communicating ~~[[means]] part~~ and said image recording ~~[[means]] part~~ which is unused for the processing of the image data to process the image data in parallel, in response to a command which is received during processing of the image data to carry out at least one of a reading operation by said image reading ~~[[means]] part~~, a recording operation by said image recording ~~[[means]] part~~, a transmitting operation by said image communicating ~~[[means]] part~~ and a receiving operation by said image ~~communication means~~ communicating part;

~~a buffer temporarily storing the read image data, the transmitting image data and the received image data on said image data bus line;~~

~~a DMA transfer bus line which is used to transfer the image data within said buffer by a DMA transfer;~~

~~image transfer means for transferring the image data within said buffer to said DMA transfer bus line based on a DMA transfer request which is received at a preset timing; and~~

~~image storing means for storing the image data on said DMA transfer bus line;~~

an electronic filing apparatus coupled to said image processing apparatus; and

a storage unit coupled to said electronic filing apparatus,

said electronic filing apparatus automatically storing a file of the image data processed in parallel within said image processing apparatus into said storage unit, independently of the reading, recording, transmitting and receiving operations in said image processing apparatus.

Claim 26 (original): The image processing system as claimed in claim 25, wherein said image processing apparatus and said electronic filing apparatus are coupled via a network.

Claim 27 (currently amended): The image processing system as claimed in claim 26, wherein said image processing apparatus further includes a network connecting means for connecting part configured to connect said image processing apparatus to said network.

Claim 28 (new): The image processing apparatus as claimed in claim 14, further comprising:

a buffer temporarily storing the read image data, the transmitting image data and the received image data on said image data bus line.

Claim 29 (new): The image processing apparatus as claimed in claim 28, further comprising:

a DMA transfer bus line configured to transfer the image data within said buffer by a DMA transfer.

Claim 30 (new): The image processing apparatus as claimed in claim 29, further comprising:

an image transfer part configured to transfer the image data within said buffer to said DMA transfer bus line based on a DMA transfer request which is received at a preset timing.

Claim 31 (new): The image processing apparatus as claimed in claim 29, further comprising:

an image storing part configured to store the image data on said DMA transfer bus line.

Claim 32 (new): The image processing apparatus as claimed in claim 28, wherein:
said image data bus line includes a first image data bus line and a second image data bus line which are independently usable by operations carried out in parallel; and

said buffer includes a first buffer configured to temporarily store image data on the first image data bus line, and a second buffer configured to temporarily store image data on the second image data bus line.

Claim 33 (new): The image processing apparatus as claimed in claim 30, wherein the DMA transfer request is supplied to said image transfer part when a storage capacity of said buffer occupied by the image data reaches a predetermined preset value.

Claim 34 (new): The image processing apparatus as claimed in claim 32, further comprising:

a DMA transfer bus line configured to transfer the image data within said buffer by a DMA transfer; and

an image transfer part configured to transfer the image data within said buffer to said DMA transfer bus line based on a DMA transfer request which is received at a preset timing,

said image transfer part carrying out a DMA transfer of the image data within the first buffer or the second buffer depending on a preset priority order when DMA transfer requests for the image data within the first and second buffers are received simultaneously.

Claim 35 (new): The image processing apparatus as claimed in claim 34, wherein the priority order is alternately switched every time the DMA transfer requests for the image data within the first and second buffers are received simultaneously.

Claim 36 (new): The image processing apparatus as claimed in claim 31, wherein said image storing part includes first and second image storing parts configured to store the image data on said DMA transfer bus line, and the image data within said first image storing part is transferred to and stored in said second image storing part.

Claim 37 (new): The image processing apparatus as claimed in claim 36, wherein said first image storing part is made up of a memory.

Claim 38 (new): The image processing apparatus as claimed in claim 36, wherein
said second image storing part is made up of a hard disk drive.